Special Edition

NATIONAL GEOGRAPHIC

THE CIVIL WAR

The Conflict That Changed America

PLUS

Battlefields Then and Now

The Civil War

Most soldiers' families were separated by war; one fortunate Pennsylvanian was joined by his wife and children in 1861.

Virginia children observe Union cavalry across Bull Run near Manassas, the names given to two great battles, both Confederate victories.

Contents

On the cover: During the war a Confederate infantryman posed with his musket and revolver.
LIBRARY OF CONGRESS (COVER AND TITLE PAGE); THE ART ARCHIVE/ART RESOURCE, NY (LEFT)

Online: Discover more about the conflict and its legacy at *ngm.com/civil-war*.

FROM THE EDITOR

Hallowed Ground

I LIVE IN VIRGINIA, and on my farm there is a hill that was once a Union Army campsite. A few years ago a man asked permission to run his metal detector over that piece of ground, and for his trouble and my acquiescence I was presented with a brass buckle, some buttons from a uniform, and a few lead bullets he'd dug up.

There is something sobering about holding those metal fragments, a reminder that Virginia was the scene of most of the battles in the eastern theater of the Civil War. The hill on my land is a tiny addition to a mournful roll call of places associated with that painful war: among them Cedar Creek, Winchester, and Manassas.

Many sites, like Antietam in Maryland (pictured here) and Gettysburg in Pennsylvania, have become national parks—"a final resting place for those who here gave their lives that that nation might live," as Abraham Lincoln memorably said. Their fields, orchards, and stone fences are tangible reminders of the past—places where we can sit under the bloom of a dogwood and listen, if only in our minds, to the story enfolded in the land.

Chris Johns, Editor in Chief, *National Geographic*

4 MICHAEL MELFORD


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Guardians of the capital, Union officers of the Third Regiment Massachusetts Heavy Artillery pose with their 100-pounder Parrott rifle in 1865, a year after transferring from New England to protect Washington from Southern raids.

LIBRARY OF CONGRESS

Bodies lay like cordwood after Antietam, America's bloodiest single-day battle. Alexander Gardner's photos of Antietam's toll—23,000 killed, wounded, or missing—shocked a nation that had never seen battlefield images of war dead.

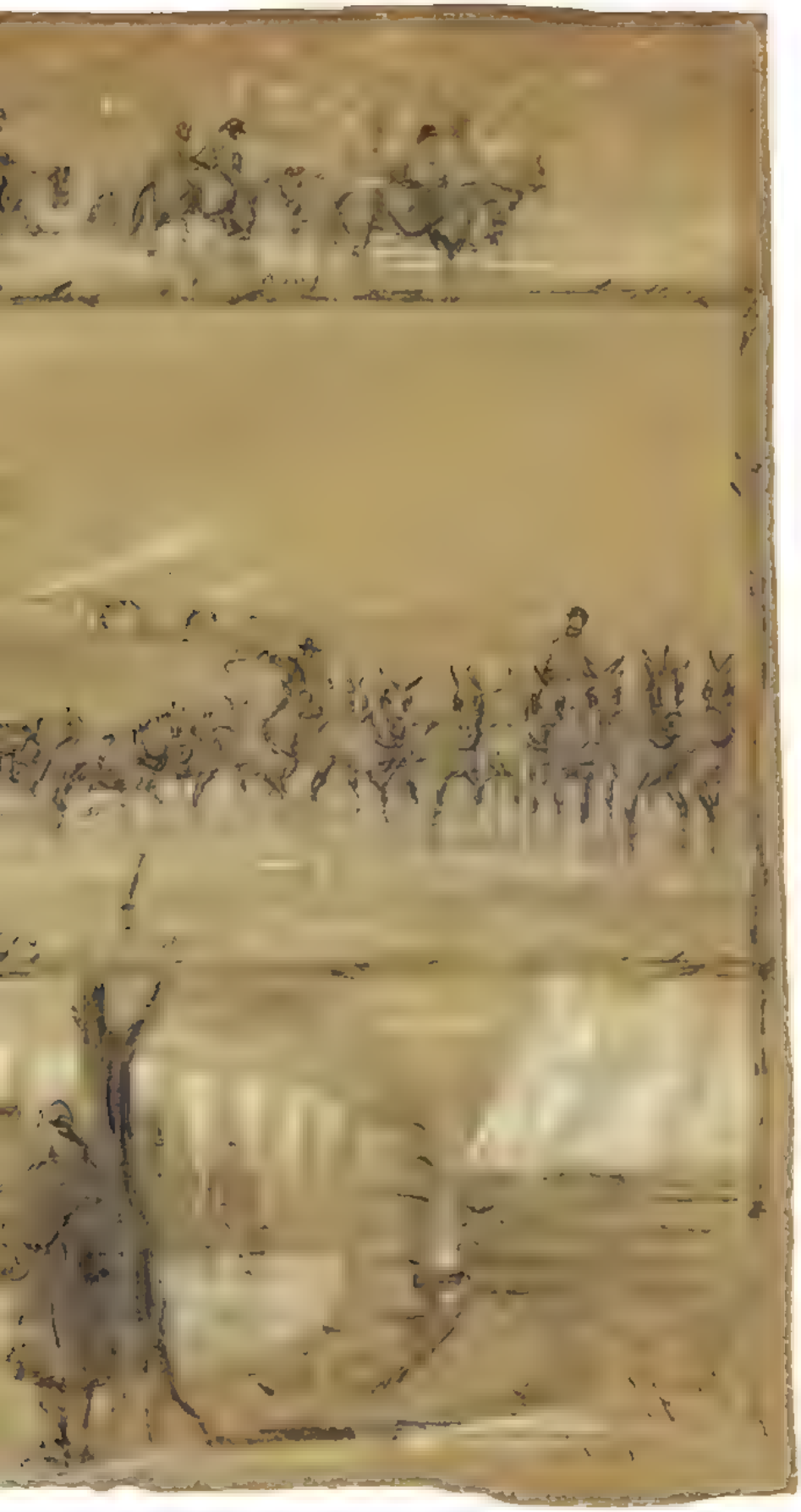
LIBRARY OF CONGRESS

Stern brothers in arms, Daniel, John, and Pleasant Chitwood joined the 23rd Georgia Infantry in August 1861. Fourteen months later, Pleasant was dead, felled by diarrhea. Disease killed twice as many Civil War soldiers as did battle wounds.

GEORGIA ARCHIVES, VANISHING GEORGIA COLLECTION, GORST

A portrait of the men of the U.S.S. *Mendota* shows black sailors among the Union Navy gunboat's crew. During the war about 18,000 black men served in the U.S. Navy—an integrated service, unlike the Army, though racial inequality persisted.

THE ART ARCHIVE/CULVER PICTURES/ART RESOURCE, NY



Before documentary photography was possible, only artists could create images of armies in motion. Alfred Waud drew scenes of battle along with war's mundane realities, such as the mud that plagued the Union's Army of the Potomac in early 1862.

"WHY THE ARMY OF THE POTOMAC DOESN'T MOVE"
LIBRARY OF CONGRESS

Union troops overlook their encampment on Virginia's Pamunkey River in May 1862. Their 100,000-man force was closing in on Richmond. Would the South fall? The Confederate capital's defenders soon pushed back; hope for a short war faded.

LIBRARY OF CONGRESS

On March 9, 1862, the first battle of ironclads—the Confederate *Merrimack* (left) and Union *Monitor*—off Hampton Roads ended in a draw.

THE MONITOR AND MERRIMACK, THE FIRST FIGHT BETWEEN IRONCLADS. LOUIS PRANG & COMPANY, LIBRARY OF CONGRESS

Ghosts of War

America's bloodiest conflict was also the catalyst that propelled our wounded nation into the modern era.

By Joel K. Bourne, Jr.

THE GHOSTS OF THE CIVIL WAR are all around us if we care to look for them, especially if you grew up in the rural South, as I did. My father, born in 1925, was raised by a 70-year-old nursemaid named Liza, who was born a slave. As a boy, I played in the ruins of a plantation house built by Gen. William R. Cox, whose brigade fired the last volleys at Appomattox. When my family swims in the ocean near my home in Wilmington, North Carolina, we bodysurf by the bones of the blockade-runner *Condor*, which wrecked on its maiden voyage, drowning the infamous Confederate spy Rose O'Neal Greenhow, who had sewn heavy gold coins into her clothing. Occasionally I see a fit, middle-aged surfer doing yoga poses on the beach and wander over to say hello to my friend Ed Pickett, the great-great-grandson of the Confederate general who lost half his troops during his bloody charge at Gettysburg 150 years ago.

"Longstreet [Pickett's commanding officer] thought it was a death sentence," Ed says. "He was sorry to give the order. But Lee had made up his mind, and Pickett did his duty. He didn't really have a choice."

It was a turning point of the war. But it also capped a year that would become a turning point for the nation, though few could guess it at the time. "The year 1863 is important for many reasons," says historian Steven Hahn of the University of Pennsylvania. "It's easy to look back and say after Gettysburg that the South was going to lose. But it was not that clear. President Lincoln worried that he wouldn't even be renominated by his own party in 1864."

It's hard to imagine the turmoil roiling the American landscape as the nation fought for survival on the cusp of an industrial revolution that ultimately transformed society far more profoundly than today's information technology revolution. On the war front, the Union was a mess. Terrible losses at Fredericksburg at the end of 1862 prompted Lincoln to write, "If there is a worse place than hell, I am in it." It would soon get much worse. Confederate Gen. Robert E. Lee's decisive victory at Chancellorsville, Virginia, in the spring

of 1863 devastated Northern morale and opened the door for Lee's invasion of Pennsylvania. On the political front, the Emancipation Proclamation, which went into effect January 1, 1863, angered almost as many in the North as in the South. Though most Northerners were anti-slavery, for them that meant no slavery in the North or West. They did not go to war to free Southern slaves. Lincoln's suspension of habeas corpus and his jailing of 13,000 Confederate sympathizers early in the war were highly unpopular. When the Union's first draft law came into force, it allowed wealthier men to avoid the killing fields by paying a $300 fee for a replacement. Spurred by Democratic newspapers of the day, thousands of poor, mostly Irish immigrants took to the streets of New York City, rioting, burning, and looting in protest. The mob even burned down a black orphanage—though the 230 children escaped unharmed. The violence lasted five days; 11 black men were lynched, and hundreds if not thousands of blacks fled the city.

And yet not all the news that year was bad. Recent inventions like the portable printing press and the telegraph brought the war news to the home front faster than ever before, fueling the popular press that would eventually rally the North behind Lincoln's cause. The first spike of the Transcontinental Railroad was driven in 1863, the birth of the great ribbon of steel that would eventually knit east and west coasts together. According to local legend, ten minutes after midnight on January 1, 1863, Nebraskan Daniel Freeman filed the first claim under the new Homestead Act that set the stage for the peopling of the plains. The first operational land-grant university, Kansas State Agricultural College—now Kansas State University—opened its doors that year, ushering in the public university system. Before the National Banking Act of 1863, any bank or state could print its own money—some of which was not worth the green ink it was printed with. The act strengthened the federal banking system, helping stem inflation, and standardized the currency we carry around today.

Even our favorite holidays would never be the same. The modern image of Santa Claus was created by Thomas Nast for an 1863 issue of *Harper's Weekly*, with the merry old elf draped in stars and stripes. And that year Lincoln, perhaps as a show of thanks for a Union victory at Gettysburg, made the last Thursday in November an official day of thanksgiving. Still, many of the era's innovations that had the greatest effect on our society were forged for the heat of battle. Principal among them was the mass manufacture of goods—particularly weapons—with interchangeable parts.

"There's a story about an American workman at the 1851 London Crystal Palace Exhibition dumping a box full of randomly selected musket parts on a table and assembling ten working weapons in front of an astonished crowd," says Timothy Francis, a historian at the Naval History and Heritage Command at the Washington Navy Yard. "That was a demonstration of interchangeable parts made with machine tools. Before then each weapon was more or less handcrafted." Mass production was just the beginning. Before the war ended, the North was mass-producing repeating arms, like the Henry rifle, which Union skirmishers used to devastating effect against Confederate troops. The Henry could fire 28 rounds a minute, compared with three or four for the much more common muzzle-loaders employed by both sides during the war. But even those weapons were a major advance over the smoothbores in use just a few years earlier, thanks to their rifled barrels and the minié ball, the conical bullet that was quick to load and spun like a spiraled football, giving it an effective killing range of 200 to 300 yards—twice as far as a smoothbore.

Lincoln was adamant about supplying his troops with the latest weapons technology, though he was often stymied by his own ordnance department. As the former lawyer for the Illinois Central Railroad, Lincoln had seen how iron rails, steam engines, and the telegraph had transformed the frontier. Thomas Jefferson had far more inventions, but Lincoln was the only President ever to hold a patent. It was for an intricate contraption that used rubberized,

air-filled, canvas floats he called "adjustable buoyant chambers" to lift riverboats over sandbars in the shallow rivers out West. His beautifully hand-carved model today graces the National Museum of American History.

Lincoln's best friend in the Navy was gunnery expert John Dahlgren, whom the President often visited at the Navy Yard when he needed to get out of the White House. When the revolutionary Union ironclad *Monitor* steamed into Hampton Roads to go toe-to-toe with the Confederate ironclad *Merrimack* (rechristened C.S.S. *Virginia*), it was sporting two 11-inch Dahlgren cannon. The ship's big guns and revolving turret, now preserved at the Mariners' Museum in Newport News, represent the first steps toward the birth of the modern battleship.

The Union enjoyed a nine-to-one advantage in industrial capability, but the South built some secret weapons too. Aside from its own ironclads, the Confederacy produced the first working submersible boat to sink a ship in battle, the *H. L. Hunley*, though admittedly it didn't work very well. The man-powered sub twice sank with all hands before successfully torpedoing the Federal warship *Housatonic* outside Charleston Harbor. The *Hunley* then took the Confederate victors to the bottom, where they remained until the sub was raised in 2000. Like the *Monitor*'s turret, the 40-foot vessel remains a remarkable ghost of the war.

A new scientific calculation of Civil War casualties puts the number of dead from both sides at 750,000—more than all America's other wars combined.

The Confederacy's blockade-runners, on the other hand, were high-tech weapons that worked very well indeed. Long and slender, with dual side-wheels or modern screw propellers and the latest steam engines, they were the smuggler-favorite cigarette boats of their day. Many were cloaked in camouflage-gray paint and burned smokeless coal to hide from Union warships. The Union blockade caught or sank hundreds of the vessels, but hundreds more made it through, taking cotton to neutral islands in the Caribbean and returning with French or English weapons. As a result, the Confederate Army never lost a battle for want of small arms, cannon, or ammunition.

"From a technological perspective, the Union learned that innovation and mass production were essential," Francis, the Navy historian, says. "That influenced how we fought wars for the next 150 years. Cutting-edge technology, the latest weapons, the latest ships, in as large numbers as possible. Outproduce opponents. Outspend them. The American way of war is to be careful with the lives of its citizens, and to do that we use as much firepower as possible."

All that firepower wreaked incredible carnage on Civil War battlefields, the likes of which the United States had never seen before and has not seen since. More than 34,000 men were killed, wounded, or captured at the Battle of Chickamauga, more than 30,000 at Spotsylvania and at Chancellorsville, and more than 46,000 at the meat grinder of Gettysburg. In less than one hour, of the three divisions that made Pickett's Charge, some 5,200 men were killed, wounded, or captured in the futile attempt to take the aptly named Cemetery Ridge.

For more than a century the number of men killed in the Civil War has been reported as approximately 618,000—360,000 Union dead, 258,000 Confederate. But those numbers have always been something of a guesstimate. Record keeping in the South was far poorer than in the North, and many of the Confederate records went up in flames along with much of Richmond in 1865. Recently, however, historical demographer J. David Hacker at Binghamton University turned to a method of calculating mortality rates that has long been used in countries with poor record keeping to estimate death rates from disease or famine. By looking at

U.S. census data before and after the war, he determined the nation's normal death rate and then how many men were absent after the war. Though not a perfect count, Hacker's calculations are considered among the most important research findings on the Civil War in decades.

"The number of deaths rose from 618,000 to 750,000," Hacker says, "an increase of 20 percent. Some 22.6 percent of the men aged 20 to 24 in 1860 died as a result of the war. That amounts to 6 percent of Northern-born men and 13 percent of Southern-born. Among some groups the percentage was even higher. One in four young Southern men died at the beginning of his earning potential. That had massive economic repercussions beyond the loss of life. There was a fertility deficit of as many as 1.5 million children who would normally have been born but were not, which contributed to a huge labor deficit in the South after the war."

Despite horrific battlefield losses, soldiers faced deadlier foes than bullets and cannon. For every man killed or who died from wounds in the Civil War, two more died of diseases like typhoid, diarrhea, and dysentery in crowded tent camps plagued by poor food and awful sanitation. Yet from this nationwide medical emergency came tremendous advances in medicine: the first widespread use of anesthetics like ether and chloroform, modern pavilion-style hospitals, ambulances to remove wounded soldiers from the field; even movable field hospitals, forerunners of modern M.A.S.H. units. Hundreds of patents were filed for new prosthetic arms and legs to replace those blown off in battle or sawed off soon afterward.

Perhaps the most lasting change in the medical field was the expanding role of women. Thousands of widows and soldiers' wives left their homes to work as nurses in hospitals and near the front. They came from all walks of life: poor, middle-class, and elite white women; black slave women in the South; and freed or escaped black women in the North.

"In the middle of some of the great battles, surgeons were up four or five days without sleep, and when they could operate no more, women often performed minor surgeries in their stead," says Jane Schultz of Indiana University–Purdue University Indianapolis, who has written extensively on Civil War nurses. "Clara Barton describes how she cut a minié ball out of a soldier's hand. Esther Hill Hawks, a New Hampshire woman, actually got her medical degree right before the war by reading her husband's medical books. She and her husband tended the 54th Massachusetts, a black regiment stationed on the Union-controlled Sea Islands of South Carolina."

In the 1890s the federal government recognized 3,400 Union nurses for their service by giving them pensions of $25 a month for the rest of their lives. Shortly after the war, professional nursing schools were established at Yale University, Massachusetts General Hospital in Boston, and Bellevue Hospital in New York. "The war brought about a mandate to train nurses, helping launch nursing as a profession," says Schultz. "And doctors gained enormous status. The war advanced the state of medicine more than anything else could have done."

Women played other new roles in the war as well. Southern and Northern women worked in textile mills and ammunition plants, where the nimble fingers of young girls were preferred. An explosion at the Confederate State Laboratory in Richmond in March 1863 killed about 40 munitions workers, mostly girls. Some women from both sides of the conflict even dressed up as men and went into battle. Others, like Rose O'Neal Greenhow and Belle Boyd, took up the cloak and dagger as Confederate spies.

"Rose Greenhow was gorgeous," says Schultz. "She had a Mata Hari effect on most people, as did Belle Boyd. Both women were strong seductresses and used their sexuality to their advantage." Greenhow, a Washington, D.C., socialite and confidante of James Buchanan, John C. Calhoun, and other Washington power brokers, was able to pass along information that aided the Confederate victory at the First Battle of Manassas. She was arrested soon afterward by Allan Pinkerton, the legendary detective.

Wartime Washington, D.C.—suddenly a frontier city—was flooded with fresh Northern troops and wounded soldiers returning from Southern battlefields. Columbian College (background) became a hospital, its grounds home to barracks and medical tents.

The beginning of the end of the Confederacy was heralded by back-to-back Union victories July 3 and 4 at Gettysburg and Vicksburg that sent Lee's weakened army scrambling south and seized the Mississippi for the North. From then on it became a punishing war of attrition, with Grant hounding Lee's army despite horrific losses of his own, knowing he was far better supplied with men and matériel. But just as important as the lost battles for Southern fields and towns was the passage of far-reaching laws for the disposition of Western lands—bills that had been blocked for decades by Southern politicians fearing an unstoppable migration out of the South that would undermine its plantation economy. Their fears were well founded.

"Legislation passed by the Republican Congress during the war initiated the complete transformation of the United States," says historian Joan Waugh of UCLA. "The Morrill Act setting up public universities, the Railroad Act, and the Homestead Act were powerfully connected and had enormous consequences."

The Morrill Act, sponsored by Vermont Congressman Justin Morrill, son of a blacksmith, gave federal land to states to establish colleges and technical schools teaching agriculture, science, and mechanical and military arts. The schools helped catapult the U.S. past Europe in technological development and applied research—a lead largely maintained to this day. Land-grant schools such as MIT, Cornell, and virtually the entire University of California are now among the top research institutions in the nation. They were founded on Morrill's strong belief that the benefits of a university education should be available to the sons and daughters of farmers, mechanics, and tradesmen like himself. Later many traditional black universities were established under this law, making land-grant schools truly "the people's colleges."

The effects of the Railway Act and the Homestead Act were equally transformative, opening some 270 million acres of new land to citizens, emigrants, and railroad magnates alike, enabling the transport of people and goods at incredible speeds. From the end of the Civil War to the end of the 19th century, the population of the Great Plains grew from less than a million to more than nine million (at the great expense of Native Americans, who were pushed off their lands onto reservations). In 1860 only nine U.S. cities had more than 100,000 residents. Five decades later 50 large metropolises, such as Denver, Detroit, and Cleveland, had sprung up along the new railroad routes.

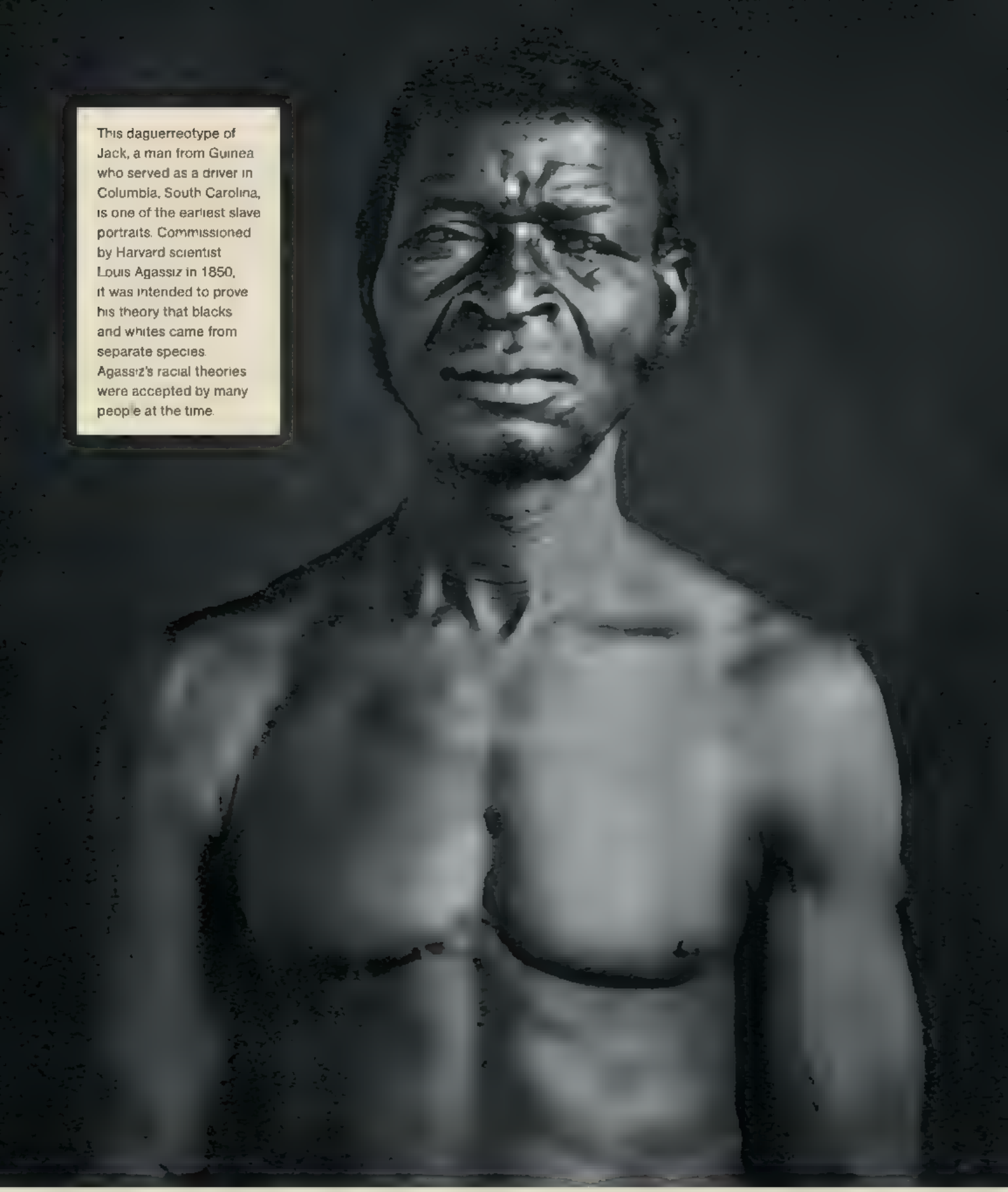
The destruction of the Southern economy—along with the brutal lynchings, Jim Crow laws, and disenfranchisement of blacks in the postwar South—helped spur one of the largest internal migrations in the nation's history. "The Great Migration reorganized the politics of the United States," says Steven Hahn, of the University of Pennsylvania. "The modern Democratic Party was made possible by the movement of thousands of blacks out of the South and into northern cities. Otherwise the New Deal would have had a much shakier foundation. The war's consequences were vast. You only have to think about what the country might have looked like if the war had ended differently and slavery had lived into the 20th century."

In fact, the way the war ended left a more important legacy than the punishing way it was conducted or even how it began, says Hahn. "Without the Civil War ending in a clear-cut Union victory, we wouldn't have had the 13th, 14th, or 15th Amendments to the Constitution, guaranteeing civil rights not just for African Americans but for all Americans. Those amendments created a framework for the struggle for political and civil equality that led to the civil rights movement and ultimately the expansion of the black middle class."

This year millions of Americans, northern, southern, eastern, western, newly emigrated or native born, will visit a Civil War battlefield—more than a million will visit Gettysburg alone—to walk in the footsteps of the men who perished. We will forever mourn their loss but forever celebrate Lincoln's vision of what that loss ultimately reinforced: a nation "conceived in liberty and dedicated to the proposition that all men are created equal."

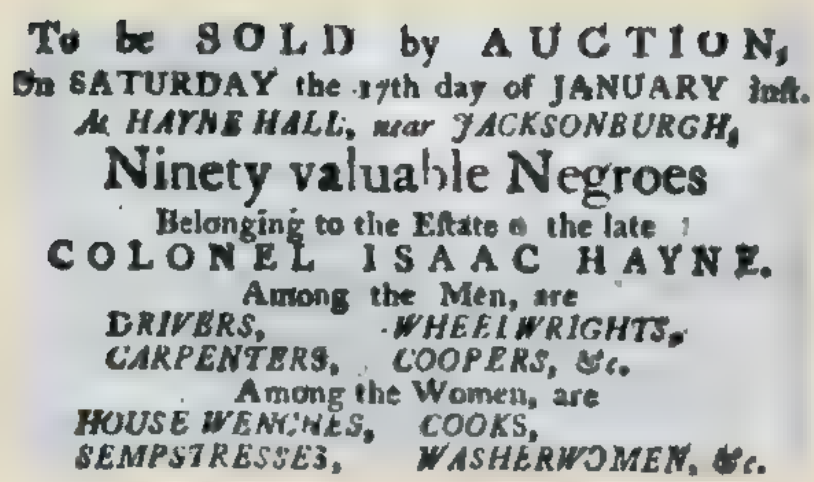
Homesteaders roll across the prairie around 1890. The Homestead Act of 1862, passed by a Republican Congress, promised 160 acres of land in the West to those who lived on the property for five years and improved it. Union vets could deduct time spent in service.

pre-1860



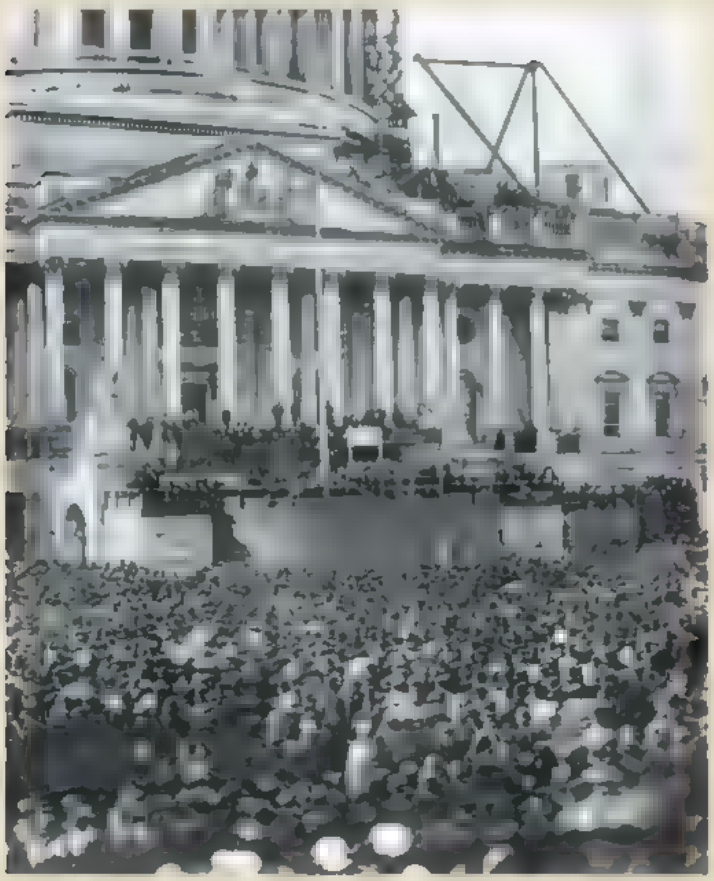
This daguerreotype of Jack, a man from Guinea who served as a driver in Columbia, South Carolina, is one of the earliest slave portraits. Commissioned by Harvard scientist Louis Agassiz in 1850, it was intended to prove his theory that blacks and whites came from separate species. Agassiz's racial theories were accepted by many people at the time.

PEABODY MUSEUM OF ARCHAEOLOGY AND ETHNOLOGY, HARVARD UNIVERSITY, 35-5-10/53043


To be SOLD by AUCTION,
On SATURDAY the 17th day of JANUARY inst.
At HAYNE HALL, near JACKSONBURGH,
Ninety valuable Negroes
Belonging to the Estate of the late
COLONEL ISAAC HAYNE.
Among the Men, are
DRIVERS, WHEELWRIGHTS,
CARPENTERS, COOPERS, &c.
Among the Women, are
HOUSE WENCHES, COOKS,
SEMPSTRESSES, WASHERWOMEN, &c.

The international slave trade was outlawed in 1808, but the domestic trade continued (advertisement, right). Owners urged slaves to have large families, but families were often broken up, especially when estates were ultimately sold.

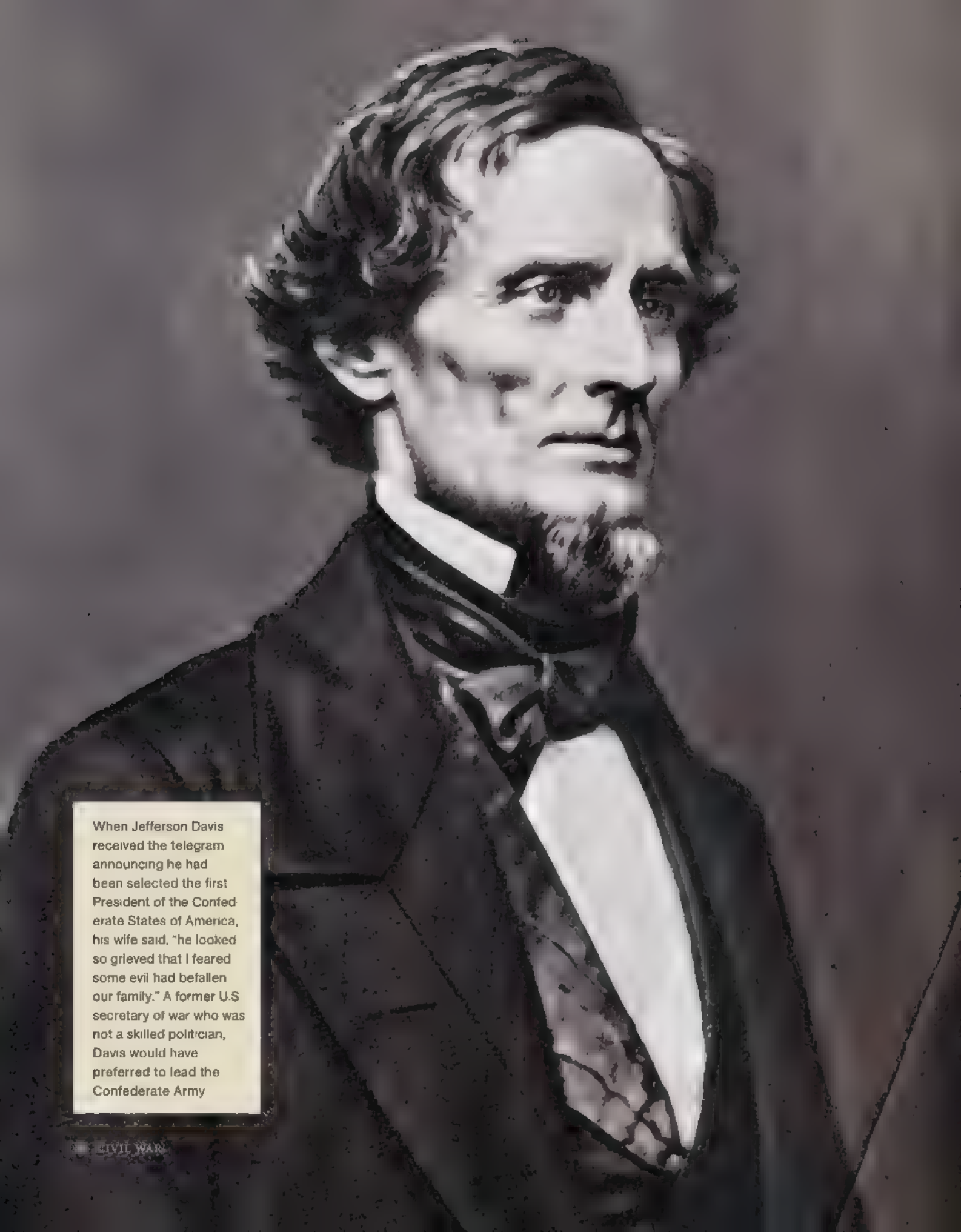
Lincoln's inauguration cemented dramatic political changes. The anti-slavery Republican Party, only seven years old, was in power, the Whigs had vanished, and the Democrats were split along regional lines.



Harriet Tubman escaped from her Maryland owners in 1849, later making 13 trips into slave territory to rescue as many as 80 through the Underground Railroad. During the war she served as a spy and a nurse.

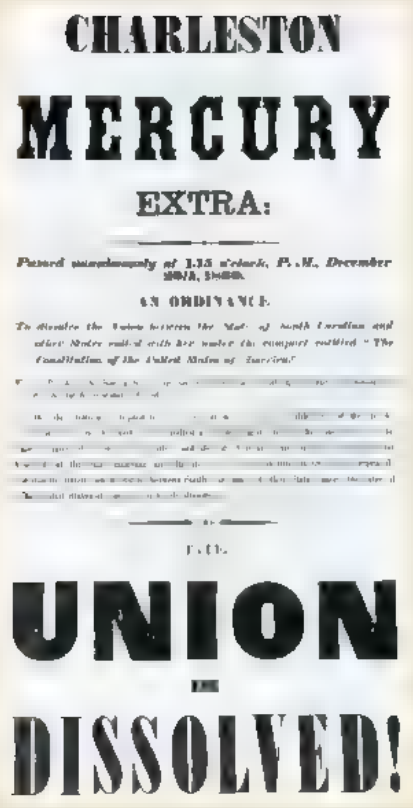
CLOCKWISE FROM TOP: HULTON ARCHIVE/GETTY IMAGES; JIM GENSHEIMER; LIBRARY OF CONGRESS

1861



When Jefferson Davis received the telegram announcing he had been selected the first President of the Confederate States of America, his wife said, "he looked so grieved that I feared some evil had befallen our family." A former U.S secretary of war who was not a skilled politician, Davis would have preferred to lead the Confederate Army

Eager to force secession, South Carolina acted quickly after Lincoln was elected. The legislature called a special convention and voted unanimously to dissolve the state's union with the U.S.



CHARLESTON

MERCURY

EXTRA:

Passed unanimously at 1.15 o'clock, P. M., December 20th, 1860.

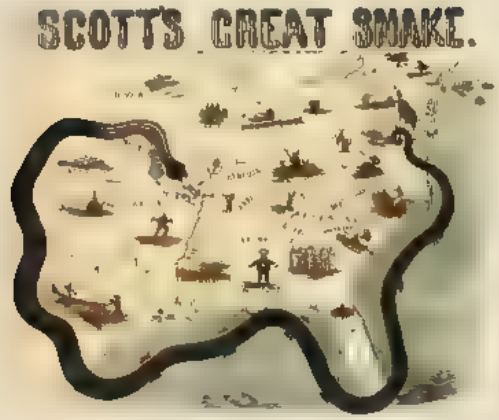
AN ORDINANCE.

To dissolve the Union between the State of South Carolina and other States united with her under the compact entitled "The Constitution of the United States of America."

UNION

DISSOLVED!

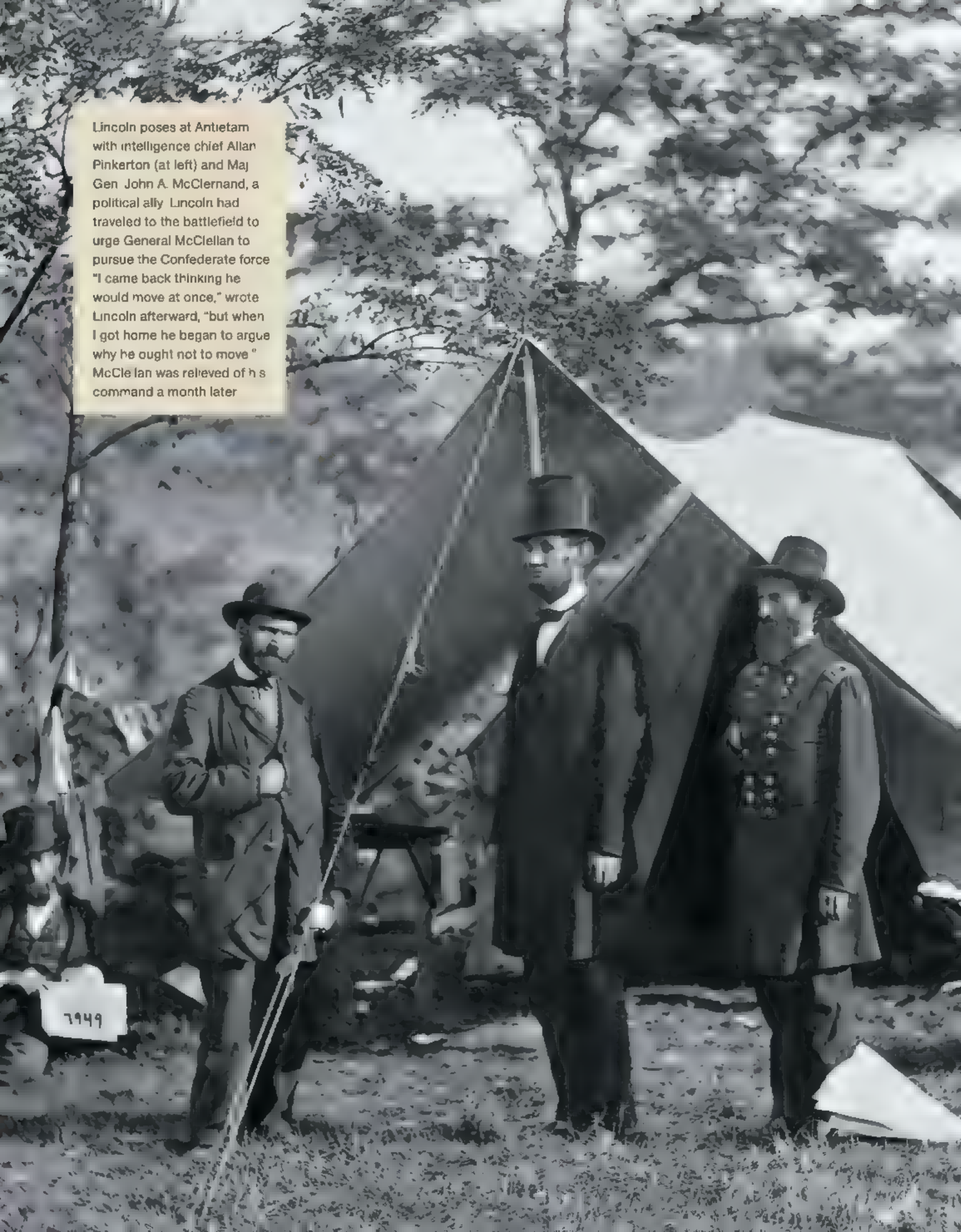
General-in-Chief Winfield Scott advocated crushing the South without an all-out invasion by blockading ports and patrolling rivers. Critics eager for battle jeeringly called it the "Anaconda Plan."



The retreat of Union soldiers from the First Battle of Bull Run grew into a stampede as the troops became entangled with crowds of civilians who had come from nearby Washington, D.C., to watch the fight.

CLOCKWISE FROM LEFT: MEDFORD HISTORICAL SOCIETY COLLECTION/CORBIS; NEW YORK PUBLIC LIBRARY/ART RESOURCE, NY; LIBRARY OF CONGRESS; BUYENLARGE/GETTY IMAGES

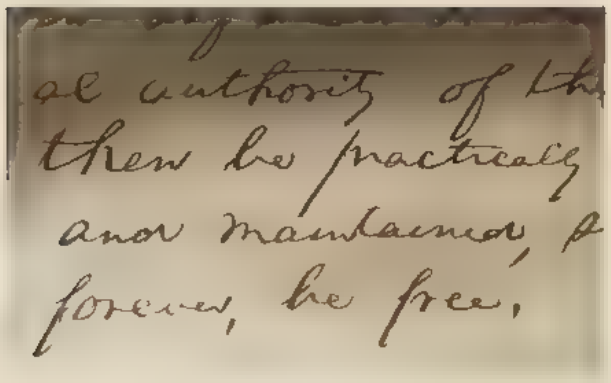
1862



Lincoln poses at Antietam with intelligence chief Allan Pinkerton (at left) and Maj Gen John A. McClernand, a political ally Lincoln had traveled to the battlefield to urge General McClellan to pursue the Confederate force "I came back thinking he would move at once," wrote Lincoln afterward, "but when I got home he began to argue why he ought not to move " McCle lan was relieved of h s command a month later

For more than three hours 500 Confederate soldiers were able to hold the high ground on the west side of Burnside Bridge against repeated Union attacks. The stand allowed time for the last of Lee's reinforcements to arrive.

Lincoln told his Cabinet that he had made a covenant with God. If the Union Army prevailed in Maryland, he would issue the Emancipation Proclamation (excerpt of an early draft, below)



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then be practically
and maintained, p
forever, be free,

Confederate troops used this sunken road at Antietam as a trench, cutting down Union soldiers. After savage fighting, the outnumbered Southerners were driven from the road. Filled with bodies, it became known as Bloody Lane.

LINCOLN SEE FORUM, GETTY IMAGES; LIBRARY OF CONGRESS; LIBRARY OF CONGRESS; IMAGE 3 THE PICTURES; GETTY IMAGES; SUSANA RAAB; AMERICA 24/7; GETTY IMAGES; ROBERT CLARK; NGS; TUFTE

1863

DIGGING IN FOR A LONG WAR
Members of the 45th Illinois huddle in makeshift [illegible] outside Vicksburg, Mississippi. During the 47-day siege, civilians and Confederate soldiers also sought [illegible] avoid shelling by hiding underground, but hunger and disease proved more [illegible]

JANUARY 1
The Emancipation [illegible] In fact, no slaves [illegible] in Confederate states shall be "forever free."

MARCH 3
Following the [illegible] the Union institutes a military draft, leading to deadly riots in New York.

Thirty thousand Confederate troops, along with several thousand civilians, sought shelter in Vicksburg. "I shal never forget my extreme fear during the night," wrote one resident, "and my utter hopelessness of ever seeing the morning light."

A Union map of Vicksburg highlights Confederate defenses along the Mississippi River. Lincoln stressed the city's strategic importance: "The war can never be brought to a close until that key is in our pocket."

Ulysses S. Grant worked in his father's leather-goods store before the war broke out. Despite a drinking problem, he had Lincoln's strong support: "I can't spare this man—he fights."

William Carney of the 54th Massachusetts received the Medal of Honor, the first African American to do so, for retrieving the flag in the assault on Fort Wagner.

CLOCKWISE FROM TOP: LIBRARY OF CONGRESS, GEOGRAPHY AND MAPS CW0284000; U.S. ARMY MILITARY HISTORY INSTITUTE; LIBRARY OF CONGRESS

Gettysburg

The bloodiest battle of the war began almost inadvertently, when a limping Confederate division set out in search of shoes. It encountered two brigades of Union cavalry and a fight that would last three days and turn the war's tide.

GETTYSBURG NATIONAL MILITARY PARK/GETTYSBURG FOUNDATION

French artist Paul Philippoteaux wasn't at the battle but captured the chaos of Pickett's doomed charge in his cyclorama, painted in the early 1880s (details enlarged below) and on display at the Gettysburg Visitor Center

Gen. Lewis A. Armistead with his hat on his sword, leads his men in Pickett's Charge, which resulted in more than 5,000 Confederate casualties. Armistead was wounded, taken prisoner, and overtaken by Winfield Hancock and the Union defenders.

[illegible] Pennsylvania & Pennsylvania, IMAGE [illegible]

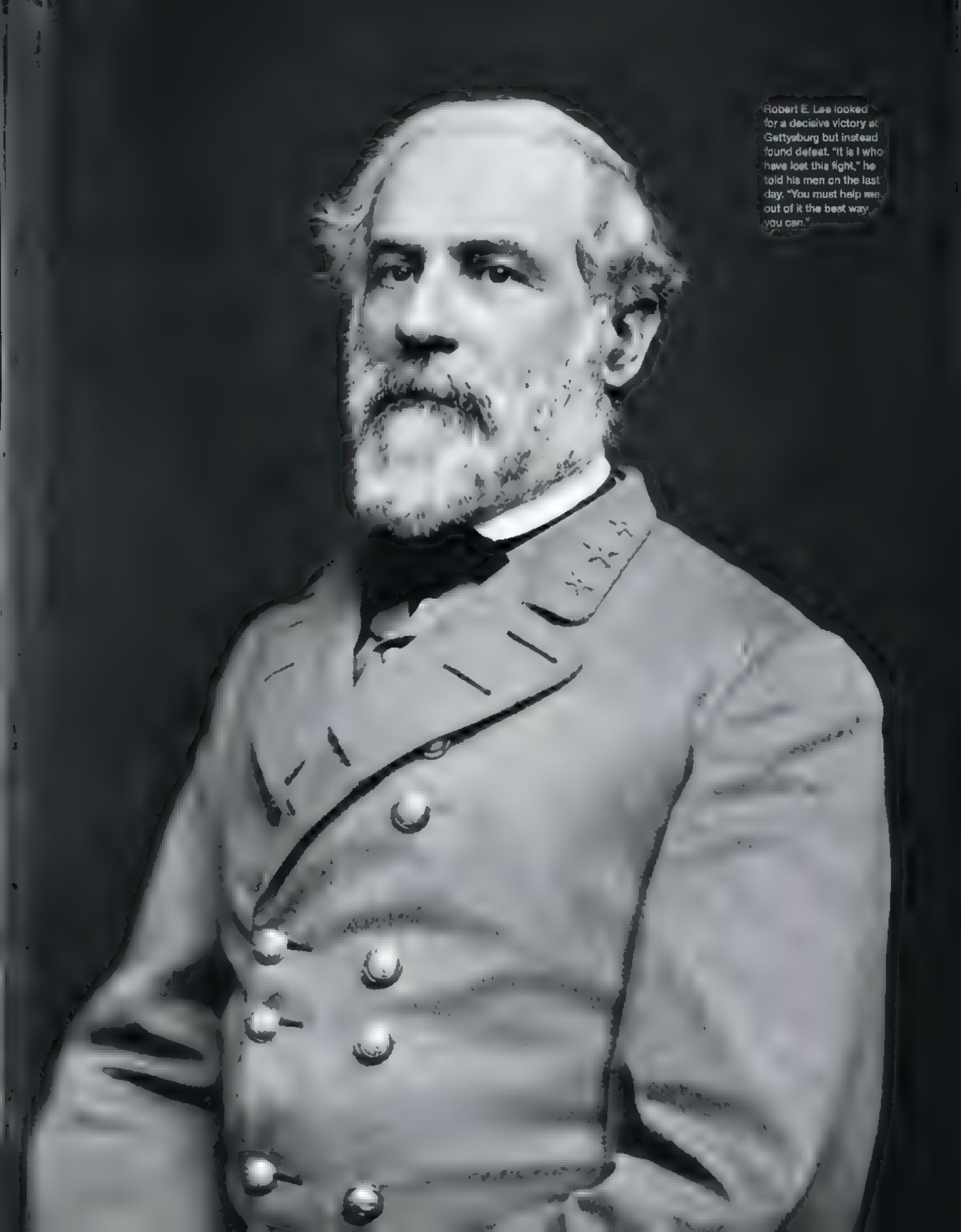
Confederate soldiers were laid out for burial two days after the battle's end. Lee lost one-third of his army at Gettysburg. Union casualties were roughly equal—and equally staggering. In all, nearly 50,000 men were killed, wounded, or missing

LIBRARY OF CONGRESS

The Union captured some 13,500 Confederate soldiers in the battle, including these three. The fate of prisoners of war on both sides could be grim: At least one in ten died in poorly run prison camps.

An 1863 map reveals the area's hilly topography. "The edge of the conflict swayed to and fro, with wild whirlpools and eddies," said Joshua Chamberlain, whose 20th Maine fought at Little Round Top.

 | LIBRARY OF CONGRESS (ALL)



Robert E. Lee looked for a decisive victory at Gettysburg but instead found defeat. "It is I who have lost this fight," he told his men on the last day. "You must help me out of it the best way you can."

A bareheaded Lincoln (circled) waits to speak at the dedication of the Gettysburg National Cemetery. Receiving a mixed response at the time, his words were later carved in stone at the Lincoln Memorial.

BETTMANN/CORBIS; ABOVE: SUPERSTOCK, INC.

FOUR SCORE AND SEVEN YEARS AGO OUR FATHERS BROUGHT FORTH ON THIS CONTINENT A NEW NATION CONCEIVED IN LIBERTY AND DEDICATED TO THE PROPOSITION THAT ALL MEN ARE CREATED EQUAL ·

NOW WE ARE ENGAGED IN A GREAT CIVIL WAR TESTING WHETHER THAT NATION OR ANY NATION SO CONCEIVED AND SO DEDICATED CAN LONG ENDURE · WE ARE MET ON A GREAT BATTLEFIELD OF THAT WAR · WE HAVE COME TO DEDICATE A PORTION OF THAT FIELD AS A FINAL RESTING PLACE FOR THOSE WHO HERE GAVE THEIR LIVES THAT THAT NATION MIGHT LIVE · IT IS ALTOGETHER FITTING AND PROPER THAT WE SHOULD DO THIS · BUT IN A LARGER SENSE WE CAN NOT DEDICATE – WE CAN NOT CONSECRATE – WE CAN NOT HALLOW – THIS GROUND · THE BRAVE MEN LIVING AND DEAD WHO STRUGGLED HERE HAVE CONSECRATED IT FAR ABOVE OUR POOR POWER TO ADD OR DETRACT · THE WORLD WILL LITTLE NOTE NOR LONG REMEMBER WHAT WE SAY HERE BUT IT CAN NEVER FORGET WHAT THEY DID HERE · IT IS FOR US THE LIVING RATHER TO BE DEDICATED HERE TO THE UNFINISHED WORK WHICH THEY WHO FOUGHT HERE HAVE THUS FAR SO NOBLY ADVANCED · IT IS RATHER FOR US TO BE HERE DEDICATED TO THE GREAT TASK REMAINING BEFORE US – THAT FROM THESE HONORED DEAD WE TAKE INCREASED DEVOTION TO THAT CAUSE FOR WHICH THEY GAVE THE LAST FULL MEASURE OF DEVOTION – THAT WE HERE HIGHLY RESOLVE THAT THESE DEAD SHALL NOT HAVE DIED IN VAIN – THAT THIS NATION UNDER GOD SHALL HAVE A NEW BIRTH OF FREEDOM – AND THAT GOVERNMENT OF THE PEOPLE BY THE PEOPLE FOR THE PEOPLE SHALL NOT PERISH FROM THE EARTH ·

1864

CUTTING A PATH OF DESTRUCTION
When Confederate troops abandoned Atlanta they destroyed everything that Union forces might be able to use, including railroad tracks. As the year progressed, more and more of the South came under Northern control.

FEBRUARY 27
The first Union prisoners die at Andersonville in Georgia. Nearly 13,000 soldiers will perish at the prison camp.

MAY 5–7
The Battle of the Wilderness in central Virginia is inconclusive. Grant continues pressing south.


troops destroy more.

After Gen. William Tecumseh Sherman took Atlanta, he turned his back on the remaining Confederate forces and marched his men to Savannah. They left a wide swath of destruction in their wake. Sherman believed that for the Union to win, the South's resources must be utterly destroyed and its will to fight broken. "War is cruelty," he once said. "There is no use trying to reform it, the crueler it is, the sooner it will be over."

Workers collect the remains of the dead from the Cold Harbor battlefield, where the Union suffered 13,000 casualties near the war's end. Afterward Grant said, "I regret this assault more than any one I have ever ordered."

Grant's engineers built this pontoon bridge so Union troops could cross the James River and reach Petersburg. The 700-yard span was the longest constructed during the war.

In the siege of Petersburg, Union forces raised 41 forts and gun batteries and dug 37 miles of trenches, which stretched almost to Richmond. Cut off from supplies, Lee was forced to evacuate.

CLOCKWISE FROM LEFT: PHOTO RESEARCHERS/GETTY IMAGES; LIBRARY OF CONGRESS; FOTOSEARCH/GETTY IMAGES; LIBRARY OF CONGRESS

1865

SURRENDER AT APPOMATTOX, BY TOM LOVELL
COLLECTION OF CLARKSTT REY GALLERY, WM. GOLDRADD

THE UNION IS RESTORED
Robert E. Lee signs the articles of surrender (at left), while Ulysses S. Grant looks on intently (at [illegible] and soldiers to keep their horses. All were allowed to return to their homes. Under such generous terms, the country began to slowly mend itself.

JANUARY 15
Fort Fisher, in North Carolina, falls to the Union, cutting off the last Atlantic port for Lee's army to get supplies by sea.

JANUARY 31
[illegible] passes the 13th Amendment, abolishing slavery. The states ratify it on December 6.

The Freedmen's Bureau
To assist the nearly four
million emancipated
slaves, it is the first
national welfare agency.

Lee surrenders to Grant
at Appomattox in
Virginia. Some fighting
continues, but the
South has lost the war.

APRIL 14
Lincoln is assassinated
by John Wilkes Booth at

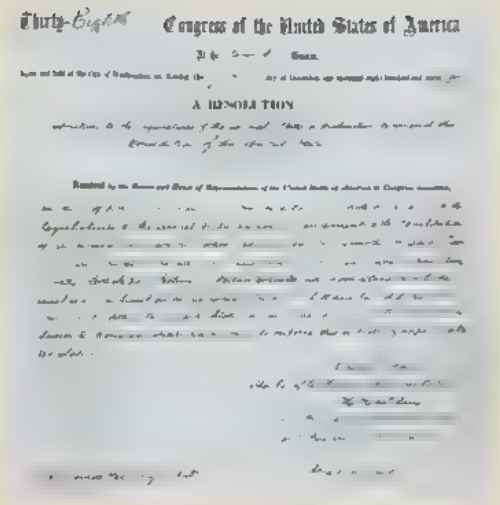
captured. He is charged
with treason and jailed

amnesty is granted.

President Andrew
Johnson pardons most
Confederates after they

As they evacuated Richmond, Confederate troops set fire to the city in order to deny Union forces its spoils. When Lincoln arrived, he was quickly surrounded by liberated slaves. One man fell to his knees in front of the President, who responded, "Don't kneel to me. That is not right. You must kneel to God only."

When the House of Representatives passed the 13th Amendment outlawing slavery, a battery of cannon outside fired a hundred-gun salute. The House adjourned for the day "in honor of this immortal and sublime event."



Thirty-Eighth Congress of the United States of America

A RESOLUTION

John Wilkes Booth first plotted to kidnap the President to trade for Confederate prisoners (murder weapon below)

Four of Booth's co-conspirators were hanged on July 7, 1865. In addition to targeting Lincoln, the plot had marked the vice president and the secretary of state, who was wounded

FROM TOP: U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION; CULVER PICTURES/THE ART ARCHIVE/ART RESOURCE, NY; LIBRARY OF CONGRESS (TWO)

LEGACIES

Technology

Iron, steam, and steel drove innovation and social change on and off the battlefield.

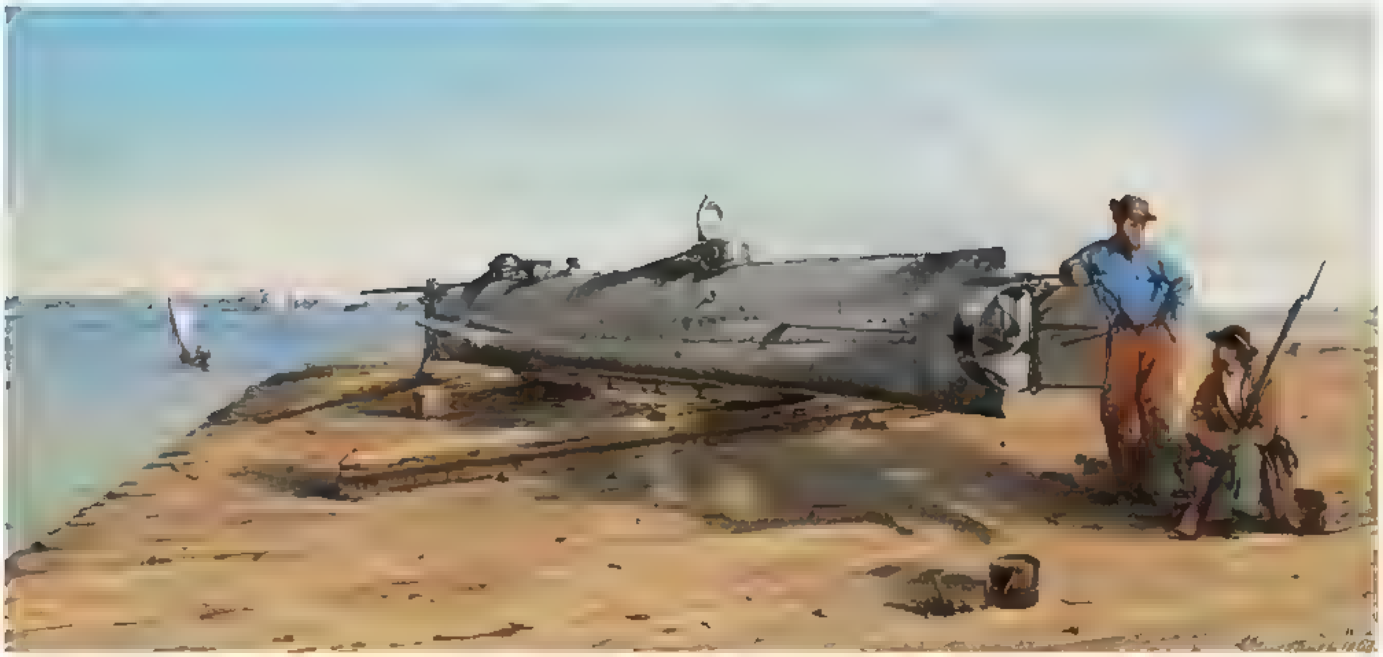
THE CONFLICT BETWEEN THE STATES has been called the first modern war, in which Napoleonic military tactics evolved and merged with the industrial revolution, to devastating effect. New steam engines and novel screw propellers powered the fast blockade-running vessels that helped sustain the South as well as the revolutionary ironclad *Monitors* built by the North.

The war saw the first effective use of sea mines, the first submersible to sink a warship, and the first wide-scale use of mass-produced repeating weapons such as Colt's legendary Navy revolver. Both sides launched hot-air balloons in early experiments with aerial reconnaissance and, reportedly, aerial photography.

Other technologies deployed during the war left a lasting mark on society as well. The telegraph was the Twitter of its day, its truncated missives credited with helping Lincoln, a huge fan of the device, achieve brevity and bite in his speeches. Telegraph wires, steam-powered printing presses, and newly minted war correspondents for the first time brought news to an anxious public as promptly as the day after a battle. Both North and South depended heavily on railroads to supply their troops. After the war the expanding threads of steel helped stitch the country back together.

IRONCLADS
Two years after U.S.S. *Monitor*'s first battle, her designer, John Ericsson, developed her big sister, the faster, four-times-as-large U.S.S. *Dictator*

THE MARINERS MUSEUM NEWPORT NEWS, VA



SUBMERSIBLE
On February 17, 1864 the *H. L. Hunley* (above) planted and detonated a charge in the hull of a Union ship and became the first sub to sink an enemy vessel in battle

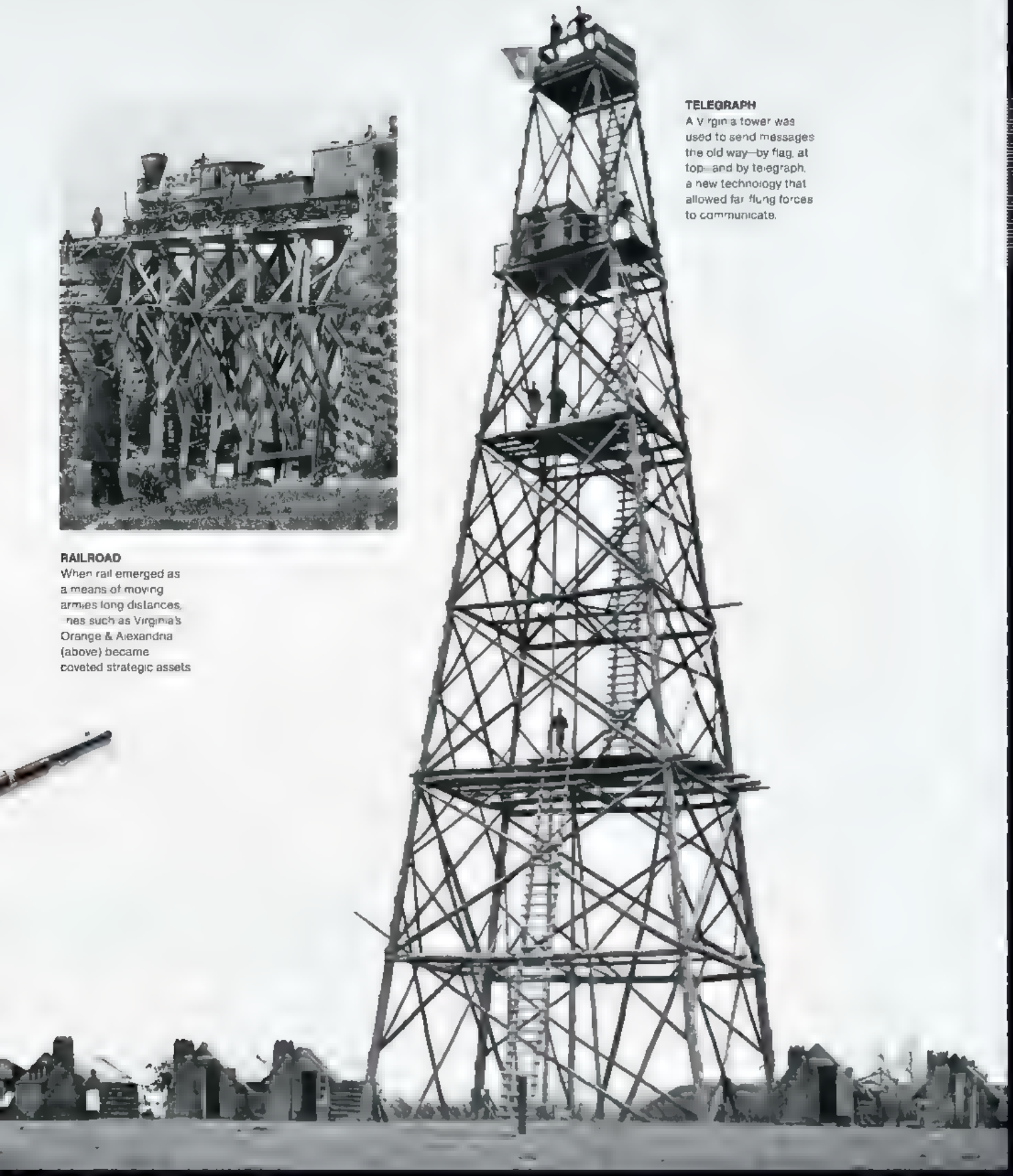
RECONNAISSANCE
Inventor Thaddeus Lowe's *Intrepid*, a Union tactical balloon in the nation's first military aeronautical unit, is filled with hydrogen in Virginia in 1862

ARTILLERY
A Union artillery park showcases a Northern advantage: the industrial capacity to produce far more cannon, ammunition, and carriages than its foe

Spencer rifles could fire 14 shots a minute. Colt revolvers became a favored cavalry weapon.

CLOCKWISE FROM TOP LEFT: THE H. L. HUNLEY, BY CONRAD WISE CHAPMAN, MUSEUM OF THE CONFEDERACY; THE NATIONAL ARCHIVES, WASHINGTON, DC; AIR RESOURCE NY; LIBRARY OF CONGRESS; MUSEUM OF THE CONFEDERACY, COURTESY MILITARY & HISTORICAL IMAGE BANK; LIBRARY OF CONGRESS (TWO).

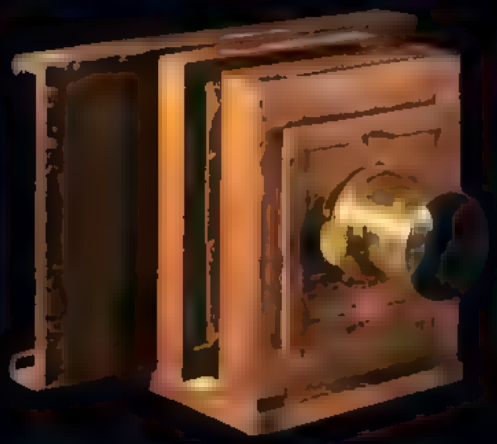
RAILROAD
When rail emerged as a means of moving armies long distances, lines such as Virginia's Orange & Alexandria (above) became coveted strategic assets



TELEGRAPH
A Virginia tower was used to send messages the old way—by flag, at top—and by telegraph, a new technology that allowed far-flung forces to communicate.

WAR CHRONICLER

MATHEW BRADY



Photographer Mathew Brady (right) had already built a reputation as a celebrity portraitist when, ignoring the advice of friends, he took his enterprise to war in 1861. "I had to go," he said. Brady, who did not personally wield the camera for many of the photographs credited to him, trained and mobilized teams of photographers and assistants who hauled their laboratories on wagons (below). Using a new collodion process, Brady's handpicked shooters focused a sliding-box camera (left), put in a glass plate wet with chemicals, and took off the lens cap. Subjects had to hold still for a 15-to-30-second exposure. The photographs that the Brady teams captured of the conflict's protagonists—from generals to infantrymen, in life and in death—redefined America's perception of war.

BLOCKWISE FROM (MR-T): LIBRARY OF CONGRESS; SILVER LANDMARKETTY (MARR); HENRY GROSKINSKY, PICTURE HISTORY


July
BRADY
The Photog
Returned
Bull

LEGACIES

Medicine

Amid the horror of war, doctors and nurses laid the foundation for modern medical care.

AFTER FIRST MANASSAS, wounded Union soldiers lined the halls of federal office buildings, even the Capitol, because there was no place else to put them. At the time, most middle-class people were treated in their homes, poor sought help at paupers asylums or workhouses. The Army didn't have a single large military hospital before the war. By the end the Union and Confederate governments had built scores, creating the pavilion-style facilities with recovery wards, dispensaries, and surgical theaters that became the precursors of modern hospitals.

Still, medical knowledge was in its infancy. Joseph Lister's application of germ theory was nearly a decade away, with surgeons sharpening their scalpels on leather bootstraps. It's a wonder anyone survived amputation at all, yet many did. Empty sleeves and crutches were badges of honor for veterans, but they soon had innovative prosthetics to help them lead more productive lives. Some men, like the indomitable John Wesley Powell, who lost an arm at Shiloh, eschewed such aids. Powell went on to explore the Grand Canyon, survey much of the West, and help found a new organization dedicated to "the increase and diffusion of geographic knowledge"—the National Geographic Society.

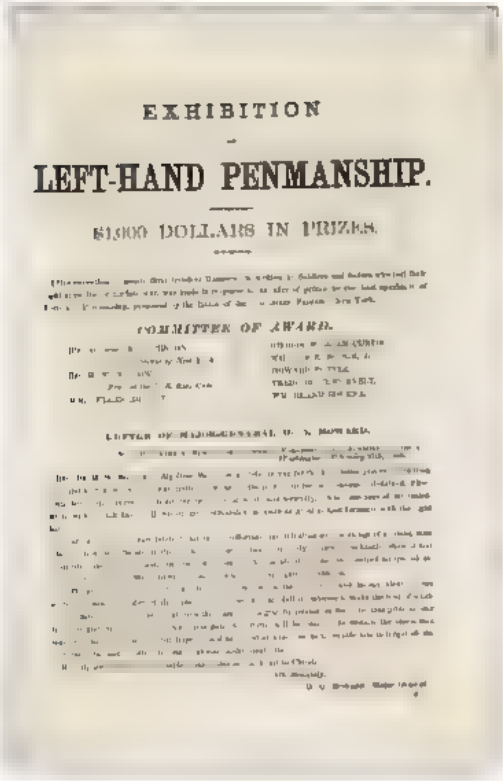
HOSPITALS
Months after the war's end in 1865 wounded vets still crowded Armory Square Hospital, one of 16 hospitals in Washington. In 1861 the city had only six

LIBRARY OF CONGRESS

MEDICINE
Doctors used chloroform for surgical anesthesia and Dover powder (below), an opiate, for fevers. The war saw a surge of female nurses, who dosed some medicines.

MOBILE CARE
In 1862 the Union started converting railcars into hospital trains and steamers into floating hospitals. Nearly 2,500 sailors found care aboard U.S.S. *Red Rover*

PROSTHETICS
About 60,000 amputations were performed during the war. New artificial limbs were welcome but drained government resources. In 1866 prostheses for veterans took one-fifth of Mississippi's budget.

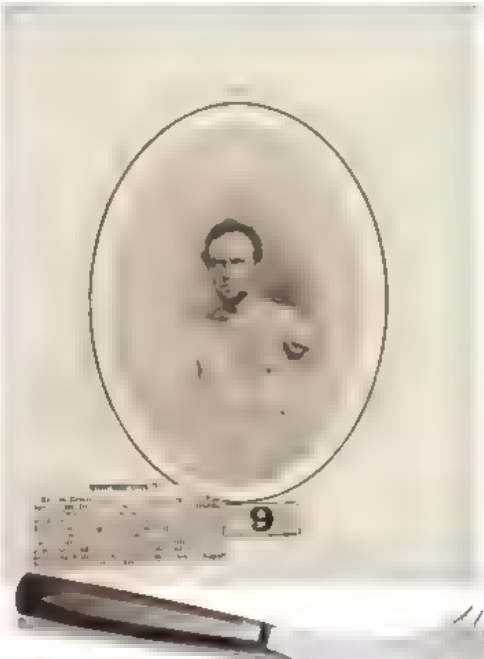


EXHIBITION

LEFT-HAND PENMANSHIP.

$1000 DOLLARS IN PRIZES.

COMMITTEE OF AWARD.

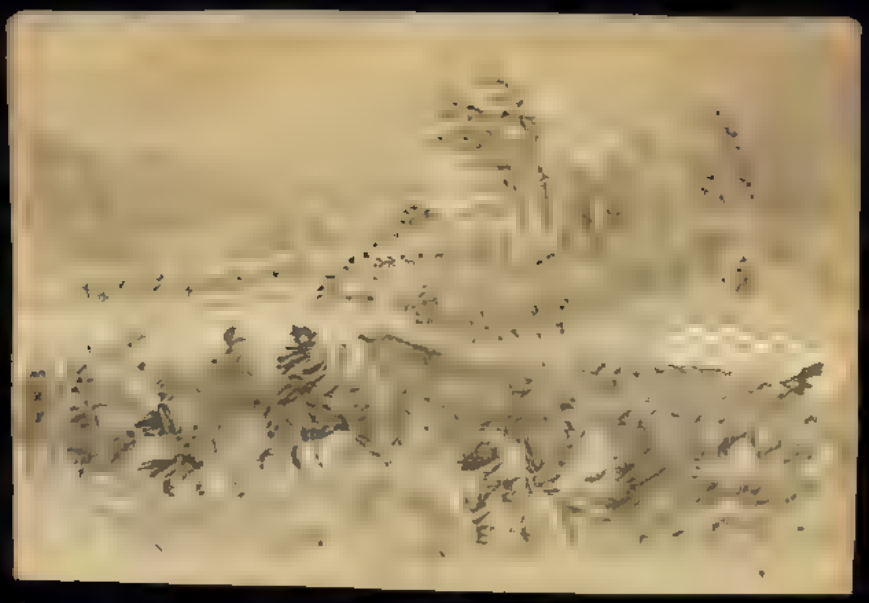


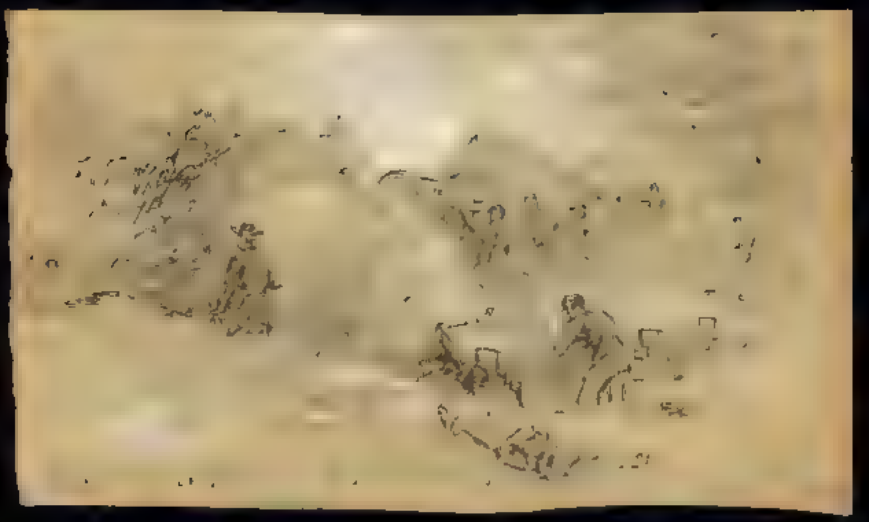
COMBINO
Arm amputations had a lower mortality rate than leg amputations. Survivors adapted to a one-handed life: tools such as the combination knife-fork helped.

CLOCKWISE FROM TOP LEFT: GEORGE NAPLE AT NATIONAL MUSEUM OF CIVIL WAR MEDICINE (CWMC); CORBIS; U.S. NATIONAL LIBRARY OF MEDICINE; HERBERT NAPLE AT NATIONAL MUSEUM OF HEALTH AND MEDICINE; RARE BOOK AND SPECIAL COLLECTIONS DIVISION, LIBRARY OF CONGRESS; U.S. NAVAL HISTORY AND HERITAGE COMMAND PHOTOGRAPH

WAR CHRONICLER

ALFRED WAUD





A reporter with a sketchbook, Alfred Waud (right, at Gettysburg in 1863) documented the Civil War from the front lines. What did it take to be a war artist? "Total disregard for personal safety and comfort," wrote fellow correspondent Theodore Davis. Waud made his battlefield debut at the First Battle of Bull Run in 1861 before signing on with *Harper's Weekly*, for which he covered the Army of the Potomac's campaigns from 1862 until the end of the conflict. All told, he drew more than a thousand scenes of the war (a winter march in 1863, top left; the Battle of Cold Harbor in 1864, bottom). As soon as he completed his sketches, they were rushed to *Harper's* offices in New York City to be engraved for publication.

LIBRARY OF CONGRESS (ALL)

LEGACIES

Women

From factory floors to battlefields, women's work and their worlds changed dramatically.

WITH MOST MEN AWAY AT WAR, many middle-class women took their places in the fields and factories of both North and South, from tending farms and sewing uniforms at home to working in munitions and textile factories in towns and cities to becoming schoolteachers—a profession that until the war had been mostly a male province.

Thousands of women left their homes entirely to follow nursing pioneers like Clara Barton and Dorothea Dix, caring for wounded soldiers in horrific conditions, often with shells bursting nearby. Some took even more dangerous paths, using their wits and charms to spy for their cause—and face death by hanging if discovered. Others disguised themselves as men and charged into battle.

Such new roles outside the home profoundly changed the course of American society. Before the Civil War, women bore an average of five to six children; by the turn of the 20th century that number had dropped to three, and it continued declining until the baby boom took off after World War II. According to demographic historian J. David Hacker, the falling fertility rate that began in the 1860s was "the single most important fact for women and the family in the nation."

WOMEN OF INDUSTRY
Engines of the economy, Northern factories, such as this Massachusetts textile mill, employed burgeoning numbers of women as men left to fight in the war

SEAMSTRESSES
When demand for uniforms exploded, women charged in. Philadelphia's Schuylkill Arsenal alone employed 10,000 seamstresses.

NURSES
The medical and military establishments thought nursing primarily a man's job until the Civil War service of Clara Barton (right), the "Angel of the Battlefield," and others on both sides began to win over skeptics.

TEACHERS
Many women turned to teaching, taking the places of male schoolmasters gone to war. Some reformers (right) journeyed south to teach freed slaves.

FROM STAGE TO SPY
Actress Pauline Cushman's greatest role: the part of Rebel sympathizer, publicly toasting Jefferson Davis, which put her in a position to spy for the Union cause.

CLOCKWISE FROM LEFT: LIBRARY OF CONGRESS; CHREE; NATIONAL PORTRAIT GALLERY, SMITHSONIAN/ART RESOURCE, NY; CORBIS

WAR CHRONICLER

JEDEDIAH HOTCHKISS

Can maps win battles? Accurate maps drawn by Maj. Jedediah Hotchkiss (right), a schoolmaster turned topographical engineer on Confederate Gen. Stonewall Jackson's staff, helped Jackson outmaneuver a Union force that greatly outnumbered his own in the Shenandoah Valley campaign of 1862. Hotchkiss often surveyed the terrain of the valley himself on horseback before plotting roads, watercourses, forest cover, and elevation on drafting paper with india ink (left, detail below). A lack of reliable maps plagued many Confederate officers; one general complained that his commanders "knew no more about the topography [near Richmond] than they did about Central Africa."

LIBRARY OF CONGRESS, GEOGRAPHY AND MAPS DIVISION, CWH0000 (MAPS); [illegible], JEDEDIAH HOTCHKISS PAPERS, HANDLEY REGIONAL LIBRARY, WINCHESTER, VIRGINIA, [illegible] (PORTRAIT)

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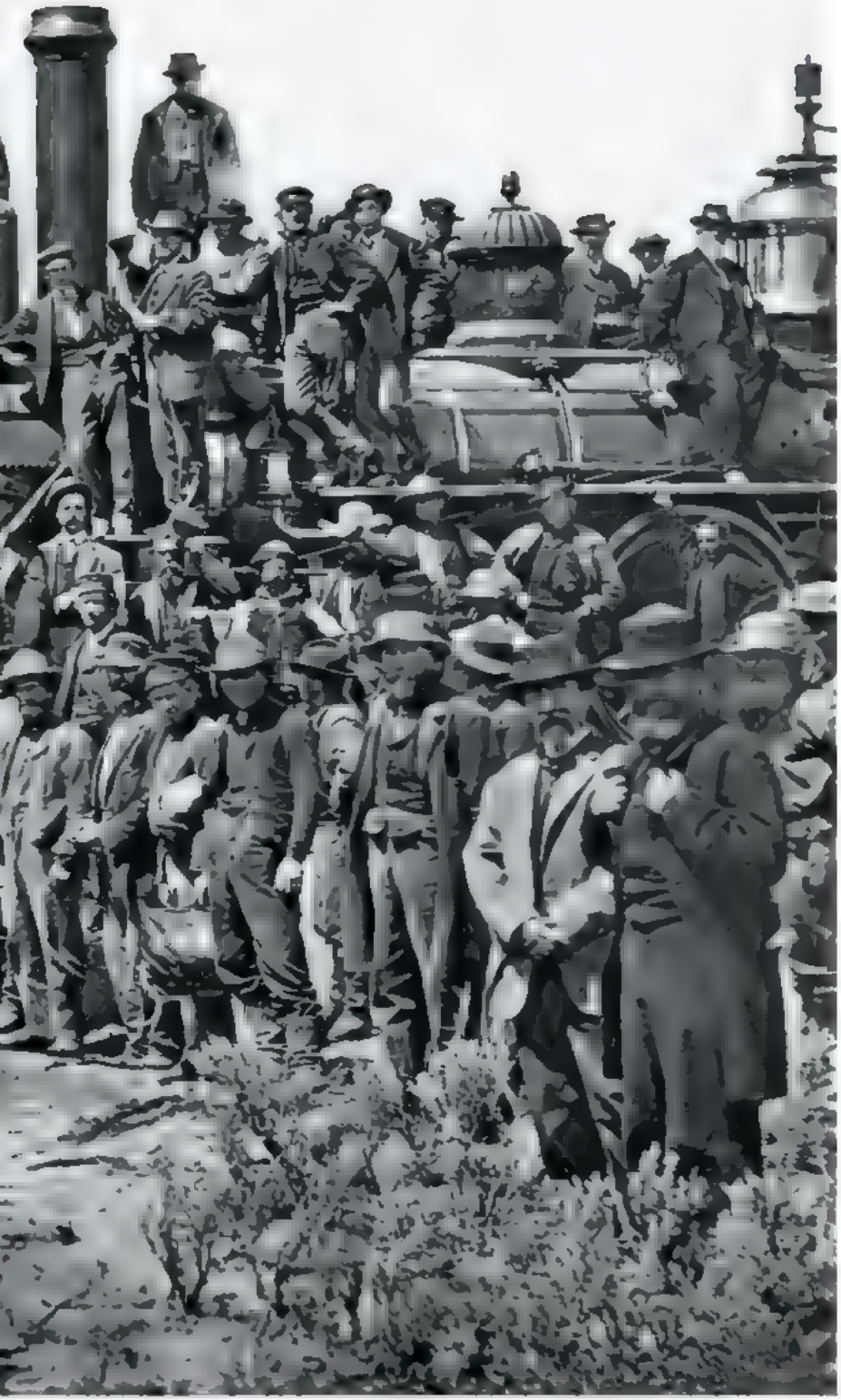


LEGACIES

Rebuilding

As East was joined with West, North and South tried to mend the wounds of war.

WITHOUT SOUTHERN OPPOSITION, the wartime U.S. Congress passed landmark legislation that freed the slaves and set the stage for the great westward expansion. Laws such as the Homestead Act, the Pacific Railway Act, the National Banking Act, and the Morrill Act establishing land-grant technical colleges helped create a powerful industrial base in the North that dominated the nation's economy for most of the next century.

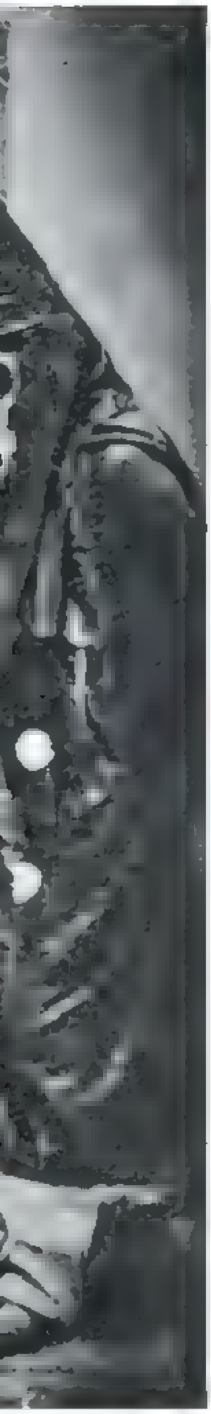
The Confederacy, however, lay in ruins—its cities burned, its plantations abandoned. Its slaves were not only free, but some were now elected officials ruling over their former masters. Among much of the southern white population, there was vehement, sometimes violent opposition. Thousands of blacks were lynched by vigilante groups like the Ku Klux Klan in an attempt to restore the old order. Jim Crow laws, enacted in the late 1870s to impede or deny civil rights, disenfranchised most southern black voters within a decade. With little other industry, the South clung to King Cotton, creating the sharecropper system, which was tantamount to economic slavery. It would take World War II to finally pull the region into the industrial economy and, with the racial integration of the armed forces, start it on the path to full civil rights for all.

WEST MEETS EAST
Four years after the war's end, the driving of a golden spike heralded completion of the first transcontinental railroad and the expansion of the American West.

AFTERMATH: NORTH
The print above captures a yearning shared by many in the North for national healing and fraternal rebuilding. Fueled by massive construction projects such as the Brooklyn Bridge (opposite), the postwar economy accelerated until slowed by a mid-1870s financial crisis and disputes over "greenback" bills (left) issued years earlier to finance the war.

CLOCKWISE FROM LEFT: FOTOSEARCH/GETTY IMAGES; STOCKTREK IMAGES/GETTY IMAGES; ANA MONEY MUSEUM, TWO

KEAN COLLECTION/GETTY IMAGES

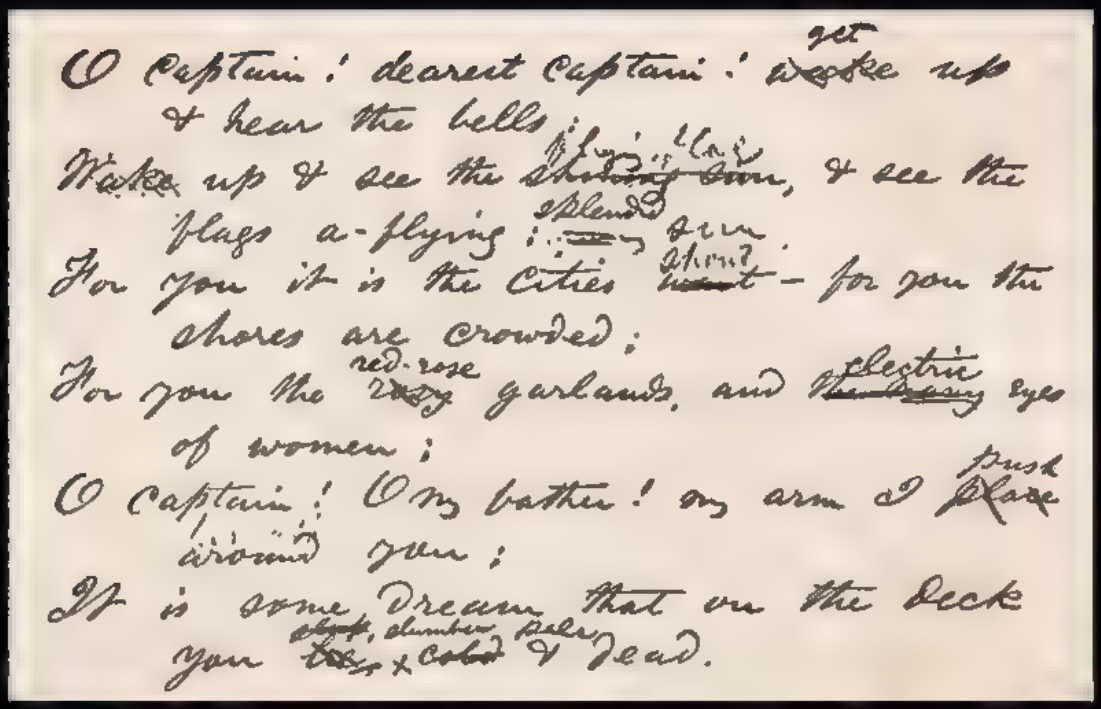


AFTERMATH: SOUTH
After the war some white Southerners swore oaths of allegiance to the U.S (right). Others were enraged by armed occupation, emancipated African Americans (bottom), and northern opportunists they called "carpetbaggers." Racist resistance groups such as the Ku Klux Klan arose (left, a mock hanging of Lincoln)

FROM TOP: CULVER PICTURES/THE ART ARCHIVE/ART RESOURCE, NY; BALEFIRE/SHUTTERSTOCK; CULVER PICTURES/THE ART ARCHIVE/ART RESOURCE, NY

WAR CHRONICLER

WALT WHITMAN



O Captain! dearest Captain! get up
& hear the bells;
Wake up & see the flag is flung, & see the
flags a-flying: splendid sun.
For you it is the cities thronged – for you the
shores are crowded;
For you the red-rose garlands, and electric eyes
of women;
O Captain! O my father! my arm I push
around you;
It is some dream that on the deck
you slept, slumber, pale & dead.

The poems of Walt Whitman (right, in 1860) voiced the collective fervor and agony of a people at war. As young men rushed to enlist in 1861, "Beat! Beat! Drums!" sounded a call to arms. Whitman later devoted himself to nursing the wounded in the hospitals of Washington, D.C., where his poems took on a darker tone, echoing the confusion and pain of a nation that, like its soldiers, had been torn apart. When news of Lincoln's assassination reached Whitman, he wrote "O Captain!" (above), a wail of sorrow.

BETTMANN/CORBIS; FOTOSEARCH/GETTY IMAGES (PORTRAIT)

Then and Now

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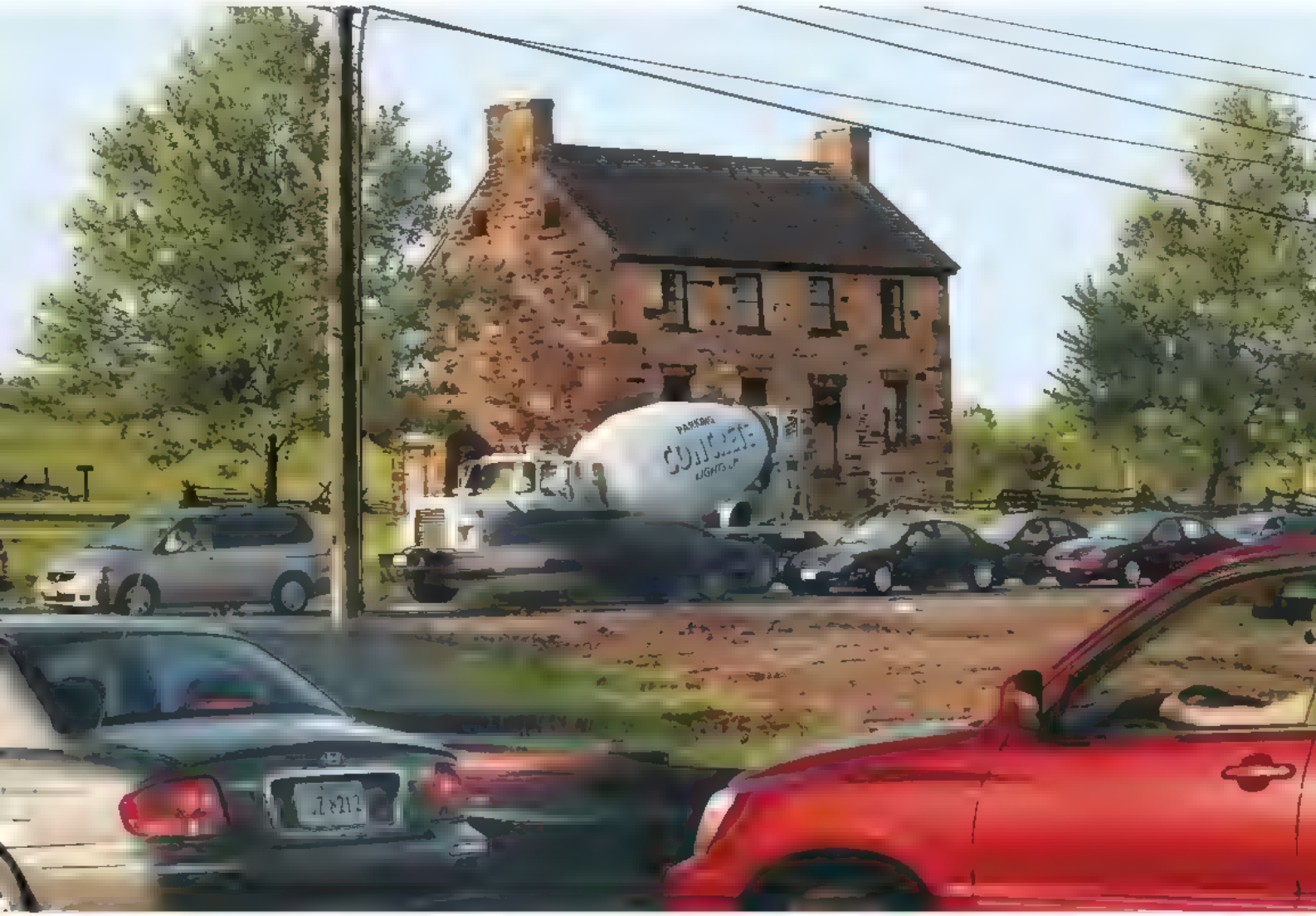
Saving the Landscapes of America's Deadliest War



Traffic arteries flow through the heart of Manassas National Battlefield Park, site of the first major clash—in July 1861—between North and South. Columns of commuters file slowly past Stone House, a tavern that served as a field hospital during and after the battle. Today plans to divert traffic around the park are under consideration.

MICHAEL MELFORD

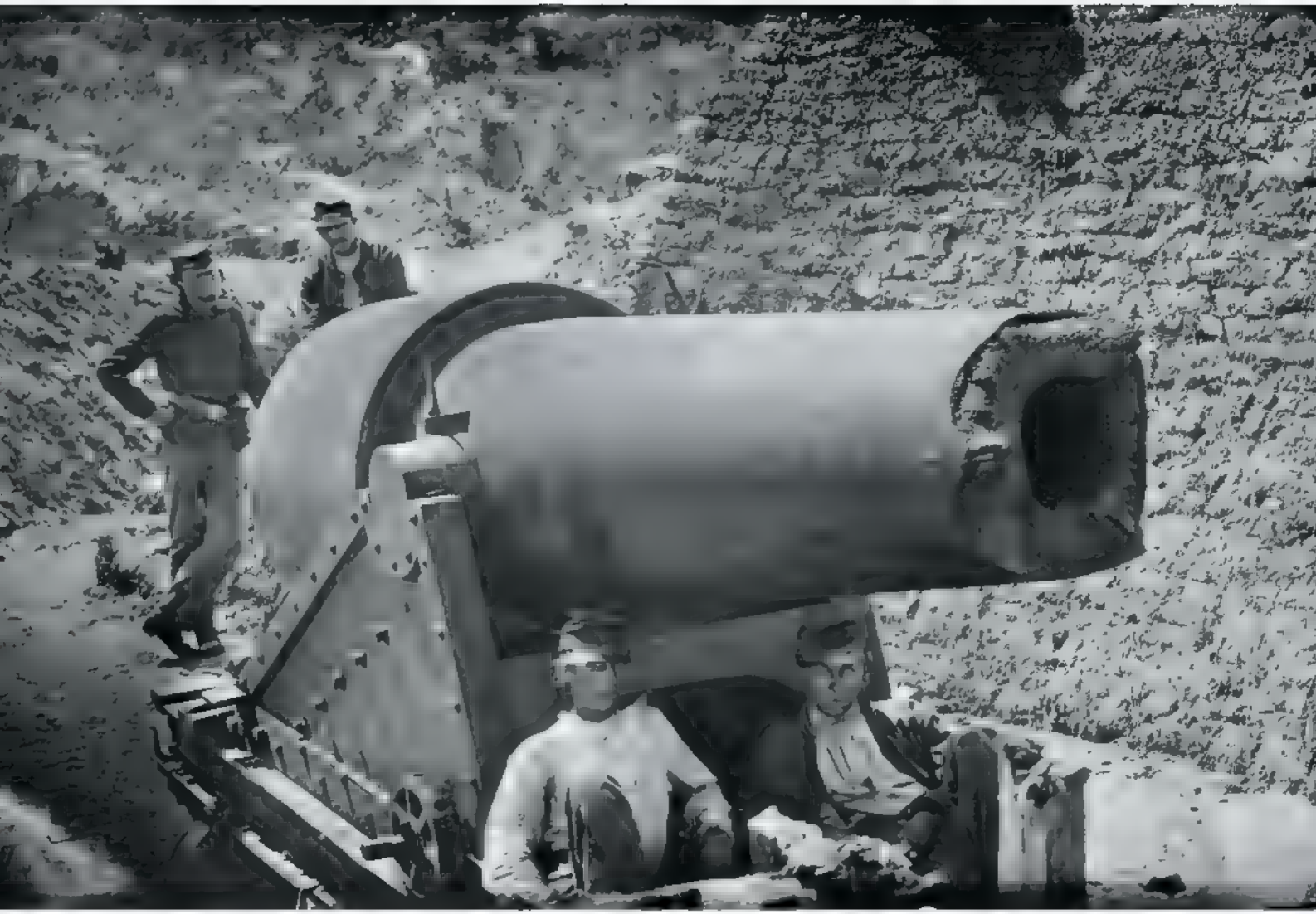
ANDREW RUSSELL, CHI-67365, CHICAGO HISTORY MUSEUM

"This is ground zero for preservation," says Jim Campi with the Civil War Trust, a group working to save land in areas such as Virginia's Spotsylvania County, where suburban sprawl covers battle sites. Union troops (left) clashed with Confederates throughout the region, midway between the capitals of Richmond and Washington.

MICHAEL MELFORD

ANDREW RUSSELL, 111-B-514, U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION

A stone wall along a sunken road shielded Confederates as they decimated Union forces in December 1862 at the First Battle of Fredericksburg. Five months later the Union briefly captured the ground during the Chancellorsville campaign. All told, more than 5,000 men died. An 1863 image (left) provided details for restorers, who rebuilt the wall stone by stone.



In 1863 Union troops on Morris Island fired shells from a 13-ton cannon at Fort Sumter across Charleston Harbor until the barrel exploded (left). Nearby, black soldiers of the 54th Massachusetts led a valiant assault on Fort Wagner. Erosion has taken a toll on the island, but preservation of its remaining historic sites is in full swing.

MICHAEL MELFORD

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Final tribute: The remains of two Union sailors, found in the turret of the *Monitor* when it was raised from the sea bottom, were laid to rest at Arlington National Cemetery on March 8, 2013—likely the last Civil War burial. The horrific losses of the war will never be forgotten. Yet it ushered in progressive changes to American society that live on today.

TYRONE TURNER